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Savannah River Site CITIZENS ADVISORY BOARD

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Aiken, SC 20802

A Department of Energy Site-Specific Advisory Board

August 21, 2007

Mr. Jeffrey M. Allison, Manager
U.S. Department of Energy
Savannah River Operations Office
P O Box A
Aiken, S.C. 29802

Dear Mr. Allison:

SUBJECT: Disposal of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Waste in SRS E-Area Slit Trenches

The Waste Management (WM) Committee of the Savannah River Site (SRS) Citizens Advisory Board (CAB) has been following the recent developments concerning the disposal of CERCLA waste disposal in the SRS E-Area Low-level Waste Facility (E-Area slit trenches). The Off-Site Rule (OSR), set forth in the National Contingency Plan (NCP), at 40 CFR 300.440 establishes the criteria and procedures for determining whether facilities are acceptable for the receipt of CERCLA wastes from response actions (Deactivation & Decommissioning activities in this case) authorized or funded under CERCLA.

When, earlier this year, the Environmental Protection Agency (EPA) suspended the Department of Energy's practice of using the E-Area slit trenches at SRS for disposal of CERCLA waste, the WM Committee members had concerns. These concerns centered on the substantial increase in disposal costs if the CERCLA waste (D&D) shipments had to be sent to another facility, probably in Utah or Nevada. The WM Committee heard several presentations on the subject and drafted a motion to request that the Department of Energy (DOE), EPA, and the South Carolina Department of Health and Environmental Control (SCDHEC) work together to restore the OSR Authority for the SRS slit trenches. The topic was discussed and the draft motion reviewed by members of the WM Committee twice, and reviewed once by the full CAB members prior to the July 24, 2007, full Board meeting.

Prior to a vote on the draft motion at the July 24, 2007 meeting, the WM Committee received notification that for all practical purposes the Three Parties (DOE, EPA, & SCDHEC) had formulated a resolution and the OSR Authority for the SRS slit trenches will be restored. As a result, the WM Committee members decided to withdraw the draft motion (attached).

Mr. Jeffrey Allison, Manager

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August 21, 2007

We commend the Three Parties for their efforts and applaud their proactive deliberations on the subject. It is our understanding that the resolution brings trench closures more inline with CERCLA requirements. With the proposed intent to include E-Area (and the E-Area slit trenches) as part of the enforceable Federal Facility Agreement (FFA), we hope the Three Parties will still utilize the existing Performance Assessment to help determine the appropriate clean up actions. In addition, the SRS CAB requests that DOE minimize the disposal of tritium in the E-Area trenches.

We look forward to hearing more about the trench site closure criteria, as they are being developed, and providing comments where appropriate. Please pass our appreciation for the successful collaborative effort along to EPA and SCDHEC.

Sincerely,



Mr. Joe Ortaldo
WM Committee Chair
SRS – Citizens Advisory Board
Aiken, SC 29803

Attachment:
Draft Motion, dated 07/02/07

cc w/attach:
Environmental Protection Agency Region – 4
South Carolina Department of Health
and Environmental Control

Disposal of CERCLA Wastes in the SRS Slit Trenches - Off-site Rule
WM First Draft (7/2/07)

Background

Section 121(d)(3) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) prohibits the transfer of CERCLA wastes to a land disposal facility that is releasing contaminants into the environment, and requires that any releases from other waste management units must be controlled. These principles are interpreted in the Off-Site Rule (OSR), set forth in the National Contingency Plan (NCP), at 40 CFR 300.440. The purpose of the OSR is to avoid having CERCLA wastes from response actions authorized or funded under CERCLA contribute to present or future environmental problems by directing these wastes to management units determined to be environmentally sound.

The OSR establishes the criteria and procedures for determining whether facilities are acceptable for the receipt of CERCLA wastes from response actions authorized or funded under CERCLA. The OSR establishes compliance criteria and release criteria, and establishes a process for determining whether facilities are acceptable based on those criteria. The OSR also establishes procedures for notification of unacceptability, reconsideration of unacceptability determinations, and re-evaluation of unacceptability determinations (Ref. 1).

In March 2006, DOE provided the FY 2005 Annual Review, E-Area Low-level Waste Facility, Performance Assessment and Composite Analysis to EPA. The report indicated the presence of tritium in the vadose zone beneath and adjacent to the Savannah River Site (SRS) E-Area slit trenches. EPA and SCDHEC determined that the tritium in the vadose zone was a "release" of a hazardous substance under CERCLA (Ref. 2).

In February 2007, EPA notified DOE that it determined that conditions existed which rendered all units previously approved for the receipt of CERCLA OSR waste unacceptable for receipt of such waste. In the letter, EPA cited the OSR, which states that CERCLA wastes should not be transferred to any unit at an other-than-RCRA Subtitle C Facility if the EPA Regional Office has information indicating that an environmentally significant release has occurred at that facility. Because of the release report in the FY 2005 Annual Review, EPA concluded that the E-Area Slit Trenches were immediately unacceptable for the receipt of CERCLA wastes (Ref. 3).

Currently even though the E-Area Slit Trenches can not receive CERCLA wastes, the disposal of radioactive low-level waste authorized by the Atomic Energy Act and DOE Order 435.1 is allowed. Under this authority, DOE is solely responsible for the design, operation, monitoring, and closure of the slit trenches. The trenches are not in the Federal Facility Agreement (FFA). If covered by the FFA, EPA and SCDHEC would prefer to use the CERCLA closure requirements (i.e. 9 Criteria of Superfund) to determine the appropriate clean up actions (Ref 4).

Comment

The slit trenches are being operated under DOE's authority given to it under the Atomic Energy Act of 1954. For a number of years, the slit trenches have been receiving waste from

Deactivation & Decommissioning (D&D) activities at SRS, specifically decommissioning actions that were being done under CERCLA removal actions or Engineering Evaluation/Cost Analysis (EE/CAs). DOE still has approximately 150,000 cubic meters of CERCLA decommissioning waste that needs disposition. If this waste stream is sent off-site, cost projects could reach well into the 100 million dollar range versus approximately 9 million if the slit trenches can be used (Ref. 5).

EPA has removed DOE's CERCLA Off-Site Rule authority for the disposition of CERCLA wastes in the SRS slit trenches. This action is confusing to many observers for the following reasons. First, the "off-site" authority for CERCLA wastes pertains to any site at SRS offsite of the slit area trenches, which includes CERCLA D&D wastes being generated elsewhere at SRS; second, it does not address CERCLA wastes coming from geographical locations physically "offsite of SRS".

EPA's suspension is under review by EPA, DOE, and DHEC. The matter began when DOE presented monitoring results to EPA that showed tritium migration from one of its slit trenches. However, no violation of the EPA drinking water standards has occurred at DOE's regulated "point of compliance" (100 m downstream or upstream of the slit trenches). Nonetheless, as a result, DOE is in the process of evaluating the performance of its slit trenches through its Performance Assessment criteria.

If CERCLA Off-site Rule Authority for the disposition of CERCLA wastes is not reinstated, CERCLA waste shipments will have to be made to another facility, probably in Utah or Nevada, meaning that the costs to the taxpayers for the disposition of D&D CERCLA wastes at SRS will increase substantially, but without providing benefits to the public, workers or the environment.

Recommendation

The SRS CAB understands that the three parties are working toward a compromise for using the E-Area Slit Trenches for CERCLA waste disposal and offers the following recommendations (Response to the recommendations should be issued by the three parties in a Tri-Party letter signed by the three agencies):

1. EPA restore DOE's CERCLA Off-Site Rule Authority for the SRS slit trenches.
2. In future dispositions at the SRS slit trenches, DOE minimize the disposal of tritium generated from CERCLA actions to the extent practical (tritium is byproduct material as defined by the Atomic Energy Act (AEA) and regulated by DOE under the authority of AEA).
3. The three parties utilize a Core Team approach to determine how the E-Area Slit Trenches can be made part of the enforceable FFA while at the same time utilize the existing Performance Assessment in lieu of the CERCLA risk assessment methodology (i.e. 9 Criteria of Superfund) to determine appropriate clean up actions. Include documentation that acknowledges DOE's authority for the slit trenches under the AEA instead of CERCLA and formalize the agreement in a MOU/MOA that outlines the trench site closure criteria and regulatory oversight.

Contact Motion Manager, Joe Ortaldo, at 803-649-0227 or Rick McLeod at 803-649-9381 with any questions or need for clarification

References

1. Off Site Rule, 58 FR 49200, 49201, Sept. 22, 1993.
2. Letter from Franklin E. Hill, Acting Director, Superfund Division, to Jeffery Allison, Manager DOE-SR, January 31, 2007.
3. Letter from J. I. Palmer, Jr., Regional Administrator, EPA, to Jeffery Allison, Manager DOE-SR, February 16, 2007.
4. EPA Position on the use of the Slit Trenches for the Disposal of CERCLA Wastes, presentation to the Waste Management Committee by Robert H. Pope, EPA-Region 4 FFA Manager, June 25, 2007.
5. E-Area Slit Trench Operations and Alternatives presentation to the Waste Management Committee by Howard Pope, DOE-SR and Helen Belencan, DOE-SR, June 25, 2007.